



# INCAR App User Guide for Evs, e-bikes and ekickscooters

Date: 06.11.2023

Author(s): Claudia Baumgartner, André Kleinhaus, Jasmin Rychlik



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No [875187]



## Details

Project number	Project acronym	Project title
875187	USER-CHI	Innovative solutions for USER centric Charging Infrastructure

Title	WP	Version
EV User Guide	6	1.0

Author(s)	Organisation
Claudia Baumgartner	
André Kleinhaus	VMZ
Jasmin Rychlik	





## Table of contents

1.	Chapter: Introduction to Electric Mobility
1.1	What is Electric Mobility?
1.2	The Rise of Electric Vehicles (EVs)
1.3	The Rise of E-Bikes
1.4	The Rise of E-Kickscooters
1.5	INCAR: Your Companion in Electric Mobility
1.6	Integration of INSOC with INCAR
1.7	Your Journey Begins Here
2.	Register as INCAR User10
2.1	Download the INCAR App10
2.2	Welcome Screen
2.3	Accepting the Terms of Use11
2.4	Sign up
2.5	Explore and Start Using INCAR11
2.6	Enter your profile
2.7	See your Charging History12
2.8	Overview of Favorites
2.9	Payment Options
2.10	Information
2.11	Select a language
	13
2.12	Reach Out for Support14
2.13	Delete Account
3.	Chapter: Finding Charging Stations15
3.1	Locating Charging Stations15
3.2	Filtering Options
3.3	Station Details16
4.	Chapter: Reserving Charging Slots



4.1	Checking Slot Availability17
4.2	Making a Reservation
4.3	Opening the parking barrier18
5.	Chapter: Charging Your EV, e-bike or e-kickscooter
5.1	Start the Charging Process
5.2	Set Your Charging Preferences19
5.3	Charge your EV, e-bike or e-kickscooter
5.4	Monitoring the Charging Process
5.5	Receiving in App Notifications20
5.6	Completing the Charging Session
5.7	Payment and Invoice
6.	Managing Your Charging History22
6.1	Accessing Your Charging History22
7.	User Feedback and Ratings23
7.1	Why Your Feedback Matters
7.2	Providing Ratings and Reviews



# 1. Chapter: Introduction to Electric Mobility

Electric mobility represents a profound shift in the way we perceive and engage with transportation. It signifies a departure from the traditional internal combustion engine and embraces the power of electricity to drive our vehicles into the future. In this chapter, we embark on a journey to understand the essence of electric mobility and how it is transforming the way we move.

#### 1.1 What is Electric Mobility?

At its core, electric mobility is a concept rooted in sustainability and efficiency. It reimagines the very essence of transportation by replacing fossil fuels with electric energy. Electric vehicles (EVs) are the embodiment of this vision, relying on electricity as their primary source of power. This shift towards cleaner and greener transportation has profound implications for the environment, our economies, and our daily lives.

## 1.2 The Rise of Electric Vehicles (EVs)

The rise of electric vehicles is nothing short of a revolution in the automotive industry. EVs have seen a surge in popularity on a global scale. They offer an eco-friendly alternative to traditional gas-powered vehicles, addressing concerns about air pollution and greenhouse gas emissions. Technological advancements, coupled with a growing awareness of environmental issues, have paved the way for the widespread adoption of EVs.

#### 1.3 The Rise of E-Bikes

E-bikes have experienced a meteoric rise in popularity, revolutionizing the way we think about personal transportation. In this chapter, we'll explore the factors and trends contributing to the e-bike revolution and why they have become a favoured choice for urban commuters and outdoor enthusiasts. E-bikes, or electric bicycles, are at the forefront of a sustainable urban mobility revolution. They combine the health benefits



of traditional cycling with the added power of electric assistance. This not only reduces the physical effort required for longer rides but also minimizes the carbon footprint of your daily commute. E-bikes are a gamechanger for environmentally conscious individuals who want to navigate urban landscapes with ease while reducing their impact on the planet. One of the key drivers behind the rise of e-bikes is their remarkable suitability for urban commuting. In congested cities, where traffic jams are a daily reality, e-bikes offer a practical and efficient solution. They allow riders to breeze through traffic, reach their destinations faster, and avoid the stress associated with long commutes. E-bikes are also ideal for the last mile, providing a convenient means of getting to your workplace or public transportation hubs.

#### 1.4 The Rise of E-Kickscooters

E-kickscooters have swiftly become a popular choice for urban mobility. Their agility, ease of use, and eco-friendliness have endeared them to city dwellers looking for a convenient and efficient way to get around. In this chapter, we'll delve into the rise of e-kickscooters and why they are transforming the way we navigate urban landscapes. Ekickscooters represent a pivotal shift in how we perceive urban transportation. With the ever-growing challenges of traffic congestion and environmental concerns in cities, e-kickscooters offer a breath of fresh air. They are designed for short trips, providing a practical alternative to cars for short urban journeys. E-kickscooters offer a nimble and eco-friendly solution to tackle the daily commute. One of the primary reasons behind the surge in e-kickscooter popularity is their unparalleled convenience. These scooters are lightweight, easy to maneuver, and can be parked almost anywhere. You can simply unlock one with your smartphone, ride to your destination, and leave it for the next user. E-kickscooters are bridging the gap between walking and driving, making them a go-to choice for urban dwellers who value time and ease of use.

#### 1.5 INCAR: Your Companion in Electric Mobility

As electric mobility gains momentum, it's crucial to have the right tools and resources to navigate this new era effectively. This is where INCAR comes into play. INCAR is more than just an app; it's your companion on your electric mobility journey. It offers a comprehensive set of features and services designed to support EV drivers und drivers of e-bikes and e-kickscooters, making your experience convenient, efficient, and



enjoyable. The benefits of electric mobility are multifaceted and farreaching. By choosing electric vehicles, you contribute to reducing harmful emissions, mitigating the effects of climate change, and improving air quality. Electric mobility is also kind to your wallet, offering lower operating costs and significant savings on fuel. Furthermore, electric vehicles provide a quieter, smoother, and technologically advanced driving experience. Let's take an in-depth look at the INCAR app and its wealth of functionalities designed to elevate your electric mobility experience.

#### Charging Station Locator

The heart of the INCAR app is its comprehensive charging station locator. Find charging stations near you effortlessly, and explore a network that extends across Europe. Discover the exact location of charging stations on an interactive map, making your EV journeys more manageable and predictable. Filter stations based on your preferences, such as station types, charging speeds, and availability.

#### Real-Time Availability

Avoid the frustration of arriving at a charging station only to find it occupied. The INCAR app provides real-time information on the availability of charging stations, allowing you to plan your trips with confidence. Reserve charging slots in advance, ensuring that your EV is ready when you need it.

#### Charging Tariffs

Access pricing information for each charging station to help you make cost-effective choices. View tariffs per station and per charging session. Stay informed about special discounts and offers to maximize your savings.

#### Start and Stop Charging

Initiate your charging session directly from the app. No more complex procedures or additional cards required. Stop charging when your EV is ready to roll, all at your fingertips.

#### Payment Integration

Seamlessly handle payments for your charging sessions within the INCAR app. It's quick, secure, and hassle-free.

#### Cross-Platform Compatibility

The INCAR app is available for both iOS and Android devices, ensuring that a wide range of users can take advantage of its features.

#### Planning and Reservations



Plan your charging sessions ahead of time by reserving slots at your preferred stations. This feature optimizes your charging schedule and minimizes wait times.

#### User-Friendly Interface

The INCAR app's interface is designed with your ease of use in mind. It offers an intuitive navigation experience and clear, user-friendly features.

#### Promoting Interoperability

INCAR is committed to fostering interoperability among electric mobility service providers (EMSPs) and charging point operators (CPOs) in Europe. The app integrates with OCPI 2.2, a new protocol, to ensure smooth communication between different entities involved in the charging process.

#### European Standard

INCAR contributes to the development of a European standard for interoperator communication, bridging the gap between EMSPs, CPOs, and Smart Cities. This initiative ensures that electric mobility becomes a common, recognized, and interoperable part of the European landscape.

The INCAR app is not just a tool; it's a commitment to making electric mobility more convenient, sustainable, and efficient. Whether you're an EV owner, an energy supplier, or a city planner, INCAR's functionalities cater to your specific needs. As the electric mobility ecosystem evolves, INCAR is at the forefront, driving change and setting new standards for the industry. It's time to embrace electric mobility with confidence, and INCAR is here to lead the way.

#### 1.6 Integration of INSOC with INCAR

One of the remarkable features of INSOC is its integration with the INCAR mobile application. This integration streamlines the entire charging process, allowing users to manage their charging sessions and make payments through the app. It's a testament to the power of innovative solutions working together to enhance the electric mobility experience.

INSOC's design is geared towards addressing the unique charging needs of LEVs in urban areas. By reducing the logistics and operational costs for both private users and e-mobility sharing service providers, it offers an efficient solution for urban mobility. No longer do you need to worry about removing and transporting your e-bike's battery for charging; it's all taken care of with INSOC. INSOC isn't just about serving e-bike and e-kickscooter users. It also extends its benefits to energy suppliers



and distribution grid operators. The smart integration with decentralized renewable energy minimizes the impact on the grid and provides flexibility, benefiting a wide range of stakeholders.

The integration of INSOC in INCAR enables the charging process not only for EVs, but also for e-bikes and e-kickscooters. It's a step forward in making mobility not only sustainable but also incredibly convenient for users. Let's explore the future of urban mobility with these innovative solutions.

#### 1.7 Your Journey Begins Here

This guide is your gateway to the world of electric mobility. It equips you with the knowledge, insights, and resources needed to embark on an electrifying adventure. Whether you're a seasoned electric vehicle driver or a driver of e-bikes and e-kickscooters, this guide is your trusted companion for an eco-friendly and efficient mode of transportation. Electric mobility isn't just a concept; it's a movement that promises a cleaner, more sustainable future. By embracing electric vehicles and leveraging the power of INCAR, you're joining the ranks of individuals who are driving change and making a positive impact on the world. Your journey into electric mobility begins here. Let's explore this exciting world together!



## 2.Register as INCAR User

Joining the electric mobility revolution with INCAR is a straightforward process. By registering as an INCAR user, you open the door to a world of electric mobility convenience. You'll be able to seamlessly manage your electric vehicle charging, the charging of e-kickscooters and ebikes due to the integration of INSOC and access a range of services designed to enhance your overall experience. Welcome to the INCAR community, where electric mobility is made simple and accessible. To get started and enjoy the numerous benefits of the INCAR app, follow the steps below:

#### 2.1 Download the INCAR App

The first step is to download the INCAR app from your device's app store. It's available for both iOS and Android platforms. It can be downloaded in this link (<u>https://userchi-incar-app.k8s.etra-id.com/</u>) or using the following QR code.



#### 2.2 Welcome Screen

INCAR

Upon opening the app for the first time, you'll be greeted with a warm welcome and an introduction to INCAR's features. Take a moment to familiarize yourself with the app's capabilities.



To use the INCAR App please read and audapt the torse of see and pattern pattern

Taxon the terms of use
 Tordectand the
 privecy policy

Before you can dive into the full INCAR experience, you'll need to review and accept the Terms of Use. These terms outline your rights and responsibilities as an INCAR user, ensuring a secure and consistent experience for all.

2.3 Accepting the Terms of Use



#### 2.4 Sign up



- Open the INCAR app and click on the "Register or log in as an INCAR user" button.
- Click on "choose EMSP" when you are already registered with an EMSP. Otherwise, click on the INCAR logo.
- You'll be prompted to provide some basic information, including your name, email address, and a secure password.



#### 2.5 Explore and Start Using INCAR

With your registration complete, you can now explore the various features of INCAR. Find charging stations, check their availability, make reservations, and even pay for charging services, all from within the app.



#### 2.6 Enter your profile

Click on the person button at the top right to go to your profile. There you can view your charging history, your favourite charging stations, payment options, further information and settings.



## 2.7 See your Charging History

Charging Humary		
Anno Anno Anno Anno Anno Anno Anno Anno	-	۲
ten eren Marianan Marianan	-	۲
New Yorkson Res Manageria Residences Residences	-	۹
	-	۲
-	-	۲

Here you see an overview of a comprehensive list of your past charging sessions by taking date, time, duration, cost and more into account.



#### 2.8 Overview of Favorites

Here you can get an overview of your favourite charging stations (marked with a star) and view their location and plug type information.



#### 2.9 Payment Options

The user can add payment information here. Payment is processed via the Stripe service. The user can enter credit card details here (card number, CVC) and enter the billing address. Alternatively, the credit card can also be scanned by pressing "scan". Press "Set Up" to save your data.





Targe Productive Formal Condition

#### 2.10 Information

Under "Information" you can view further information on data protection, the Terms of Conditions, the Imprint and Open Source Settings as seen down below:





#### 2.11 Select a language

Select "Settings" to adjust the language and personalize INCAR. Below you see an Overview of all the languages that are supported in INCAR:







### 2.12 Reach Out for Support

If you should you have any questions, encounter challenges, or require guidance during the onboarding process, our dedicated support team is available to assist. Reach out to us at <u>incar support@userchi.eu</u> for prompt assistance.

#### 2.13 Delete Account

If you want to delete your account, press "settings". Aside of adjusting the language you can also click on "delete account". Afterwards you will be asked, if you want to delete the account. Click on "confirm" to delete your account.







# 3. Chapter: Finding Charging Stations

In this chapter, we'll show you how to use the INCAR app to discover nearby charging stations for your electric vehicle (EV), e-bike and ekickscooter. Whether you're on a daily commute or planning a road trip, finding the right charging point is a breeze with INCAR. With INCAR, you'll never have to worry about where to charge your EV, e-bike or ekickscooter. Finding the perfect charging station is now a hassle-free part of your electric mobility experience. Let's get you charged up and on the road!

## 3.1 Locating Charging Stations

- Browse through the interactive map to view the charging stations in your vicinity.
- Stations are marked with icons.



• The app is organised in different layers. Select the blue-green icon with the lightning bolt in the centre of the city in which you want to load. The procedure is shown as an example in the screen for Berlin Prinzenstraße 1. You can also see the availability of charging stations (in this case 2/2).

### 3.2 Filtering Options

• Utilize filters to narrow down your search. Filter by availability, electricity supply, plug type and more.

• Please make sure in advance that you find a station that matches your vehicle's requirements.





#### 3.3 Station Details

• Click on a station to access detailed information.

 Learn about the station's location, available plug types, prices for energy (€/kWh) and per time (€/min), reservation and real-time availability status.





# 4.Chapter: Reserving Charging Slots

This chapter is all about making your EV charging experience even more convenient. INCAR allows you to reserve charging slots in advance, ensuring that you have a dedicated spot ready when you need it. Learn about the advantages of reserving slots, including peace of mind and avoiding waiting times. Reserving charging slots with INCAR gives you the peace of mind that your charging needs are secured. It's another step towards hassle-free electric mobility!

### 4.1 Checking Slot Availability

- Open the INCAR app and navigate to the charging station of your choice.
- View the available slots and their respective availability status (not available  $\rightarrow$  red/ or available  $\rightarrow$  green)
- In the example in the centre, 3 of 4 stations are available at Prinzenstraße 1 in Berlin. In the second example, two of two stations are available at Paul Junius Straße 66 in Berlin.





#### 4.2 Making a Reservation



• Follow the path above, click on "Reserve" and select the charging station you want to reserve. Afterwards the station is reserved for a time slot (15 minutes).

• In addition to information about the CPO (in this case Qwello for Berlin), the distance to the charging station is displayed based on the GPS function, as well as information about the plug time

and the charging price per kWh.

• In the case that the user decides to cancel the reservation after all, this can be done with "cancel reservation".



### 4.3 Opening the parking barrier

To access the charging stations that are located in Paul-Junius Straße 66 in Berlin, you have to open a parking barrier. When you are located in the vicinity of the charging stations due to the integrated GPS function you can press "parking barrier" to access the charging stations.



# 5.Chapter: Charging Your EV, e-bike or ekickscooter

In this chapter, we delve into the process of charging your electric vehicle (EV), e-bike or e-kickscooter using the INCAR app. We'll guide you through the steps to ensure your EV is powered up and ready to go.



#### 5.1 Start the Charging Process

• Open the INCAR app and find a charging station that suits your needs. Make sure to check the station's connector compatibility and connect the plug with your EV, e-bike or e-kickscooter.



## 5.2 Set Your Charging Preferences

• Now you can set your charging preferences thanks to SMAC, a tool that offers smart grid integration and demand management services for slow, medium, fast and ultra-fast charging.

• To optimise the charging process, you can set the maximum capacity of your battery, your current battery level and your minimum battery level after the charging process.

• In the last step, confirm the entry of your data to proceed to the next step or press "skip" if you want to skip this step.





# 5.3 Charge your EV, e-bike or e-kickscooter

• After you have connected the plug with your EV, ebike or e-kickscooter click on "start charging" and swipe to start the charging process.



# 5.4 Monitoring the Charging Process

• Keep track of your charging progress in real-time.

• View important data like charging speed and remaining time.

#### 5.5 Receiving in App Notifications

When the INCAR app is used in Rome, e.g., the user is notified in in-app notifications, when the charging session is near completion. This ensures you can return to your EV without delay.





# 5.6 Completing the Charging Session

• Once your EV, e-bike or e-kickscooter is fully charged, end the session through the app. The app will provide a summary of your charging session (including price, status and more).

• The status of the charging session is marked as successful.

## 5.7 Payment and Invoice

Review the charging cost and make the payment securely via the app. You'll receive an electronic receipt for your records via mail.





# 6. Managing Your Charging History

In this chapter, we'll explore the tools and features within the INCAR app that allow you to keep a detailed record of your electric vehicle (EV), e-bike or e-kickscooter charging history. This information can be valuable for both personal tracking and business use.



## 6.1 Accessing Your Charging History

• After the charging process has finished, click on "see history" to view your charging history within the INCAR app.

• Then you see an overview of a comprehensive list of your past charging sessions by taking date, time, duration, cost and more into account.



# 7.User Feedback and Ratings

In this chapter, we explore the importance of user feedback and ratings within the INCAR app. Your voice matters, and your input can shape the future of electric mobility for everyone.

#### 7.1 Why Your Feedback Matters

At INCAR, we believe in the power of continuous improvement, and your feedback is a vital part of this journey. Your insights, suggestions, and experiences matter greatly, and here's why:

Enhancing User Experience: Your feedback provides valuable insights into your experiences with the INCAR app. Whether you've encountered a feature that you love or have suggestions for improvement, we're eager to hear about it. Your input directly influences our app's evolution, ensuring that it remains user-centric and efficient.

<u>Identifying and Resolving Issues</u>: If you encounter any challenges while using INCAR, your feedback serves as a crucial tool for identifying and resolving these issues. By reporting problems or glitches, you contribute to a smoother and more reliable experience for all users.

Tailoring Features to Your Needs: Your feedback helps us understand your specific needs and preferences. This knowledge allows us to tailor existing features and develop new ones that align with your requirements. In essence, your input shapes the future of the INCAR app.

<u>Strengthening the EV Community</u>: By sharing your feedback, you're not only benefiting yourself but also the broader electric vehicle (EV) community. Your suggestions can lead to advancements that improve the overall EV ecosystem, making electric mobility an increasingly accessible and seamless choice for everyone.

<u>Partnership in Progress</u>: Your feedback fosters a collaborative partnership between you and INCAR. It demonstrates our commitment to transparency and responsiveness, ensuring that you're an active participant in the app's development.

<u>Encouraging Dialogue</u>: Your feedback initiates a constructive dialogue between users and our team. We're here to listen, respond, and engage with you, reinforcing our dedication to delivering a top-tier electric mobility solution.



<u>Building a Brighter Future</u>: Ultimately, your feedback plays a pivotal role in advancing the electric mobility landscape. Together, we can contribute to a sustainable, eco-friendly, and convenient future of transportation.

Incorporating your feedback into our ongoing efforts is not just a goal; it's our commitment. We encourage you to share your thoughts, suggestions, and experiences with us, as together, we drive the evolution of electric mobility through the INCAR app. Your feedback matters, and it shapes the future of electric mobility for all.



## 7.2 Providing Ratings and Reviews

For the optimization of INCAR it is important to leave ratings and write reviews for charging stations and your overall INCAR experience. Share your thoughts and experiences with the community by filling out the rating scale with stars after your charging process is finished (see left screen) or leave us a comment in the Google Play Store or in the IOS App Store.